

# **The Indianapolis Local Public Improvement Bond Bank ("Bond Bank")**



## **Swap and Derivative Policy**

**Adopted: August 31, 2009**

The Indianapolis Bond Bank was created in 1985, pursuant to IC 5-1.4-3-1. The Indianapolis Bond Bank is governed by a five-member Board of Directors. Each Director is appointed by the Mayor of Indianapolis. The Bond Bank staff consists of the Executive Director, Deputy Director/General Counsel, Project Managers, Trust Accountant, Finance Manager, Office Manager and Executive Assistant/Human Resource Manager.

The Bond Bank serves as conduit issuer for Qualified Entities and manages outstanding debt obligations of the Qualified Entities. Moreover, the Indianapolis Bond Bank supports and/or manages the operations of miscellaneous City projects, including Union Station, Indianapolis Downtown Canal, Indianapolis Downtown, Inc, and various City owned parking facilities.

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## **I. Introduction and Policy Summary**

The purpose of the Swap and Derivative Policy (“Policy”) is to establish guidelines for the use, management and monitoring of interest rate swaps and other financial derivatives.

The Policy governs the use and management of interest rate swaps as they are used with debt issuances. Its purpose is to reduce the cost of capital and risk with the help of an established financial tool used broadly by municipal governments. It is also intended to guide staff in the management of existing swaps. The use of interest rate swaps can be beneficial in refunding situations where issuance of traditional fixed rate bonds will not meet targeted refunding savings, as well as in reducing the cost of new money debt issues.

An interest rate swap is a binding agreement between counterparties to exchange periodic interest payments on some predetermined dollar principal, which is called the notional principal amount. For example, after having issued variable rate, long-term bonds, the Bond Bank can swap a floating rate interest obligation (normally based on an established index, such as LIBOR or SIFMA) with another party (counterparty) for a fixed rate. Assuming that the variable rate paid on the bonds matches closely with receipts on the swap, the Bond Bank will be insulated from changes in interest rates and benefits from certainty.

## **II. Scope and Purpose**

This Policy will govern the use by the Bond Bank of financial derivative products, such as swaps, swaptions, caps, floors and collars (“Derivatives”).

The Bond Bank is a conduit issuer, meaning that it issues bonds and notes on behalf of its Qualified Entities. Similarly, decisions regarding managing the risks of particular long-term obligations must be undertaken in conjunction with, and with the understanding and agreement of, the Qualified Entity that bears such obligations. When the Bond Bank discusses a potential financing with a Qualified Entity, it shall review with the Qualified Entities all the various financing options. Such options include agreements to manage interest rate risk or other financing risks, or to reduce the interest cost on debt.

In situations where it is appropriate because of legal, structuring or other concerns, the Bond Bank will, upon request of a Qualified Entity after thorough review and analysis, enter into agreements in respect of such Qualified Entity’s bonds.

All financial obligations, all collateral obligations and all obligations dealing with the condition or affairs of a Qualified Entity undertaken by the Bond Bank under financing agreements must

be supported by such Qualified Entity. Similarly, the payment obligations of the Bond Bank must be special and limited, payable not from the general funds of the Bond Bank, but only from the Trust Estate or Pledged Revenues attributable to that series of notes/bonds held under the Indenture.

The Bond Bank may engage one or more advisors to help the Bond Bank carry out the purposes of this Policy. One such advisor shall be the Swap Advisor, and its role shall be to help the Bond Bank analyze Swap proposals, educate its Qualified Entities, negotiate the terms of and procure Swaps and perform such other duties as requested by the Bond Bank. Another advisor may be the Swap Monitor, who may or may not also serve as Swap Advisor, and its role shall be to monitor Swaps for the benefit of both the Bond Bank and its Qualified Entities and to report to the Bond Bank and its Qualified Entities as described herein. The Bond Bank may also engage additional advisors, as appropriate, to assist in implementing this Policy.

The Bond Bank should make its Qualified Entities aware of the fact that synthetically fixing the cost of funds by way of interest rate swaps mitigates, but does not eliminate, interest rate risk due to risks factors described in “**Aspects of Risk Exposure Associated with Such Contracts**”, shown below.

The Bond Bank recognizes that changes in the capital markets and other unforeseen circumstances may produce situations that are not covered by this Policy or that make guidelines in this Policy inappropriate. The Bond Bank charges the staff, in such circumstances, to conform, to the extent possible, with the purposes of this Policy. The failure by the Bond Bank to comply with any provision of this policy will not invalidate or impair any derivative agreement.

### **III. The Conditions under Which Derivatives May Be Entered Into**

#### *Purposes*

Derivatives may be entered into if the transaction can be expected to result in one of, but not limited to, the following outcomes:

1. Reduced exposure to changes in interest rates on a particular financial transaction, or in the context of the management of interest rate risk derived from a Qualified Entity’s overall asset/liability balance.
2. Result in a lower expected net cost of borrowing as compared to a product available in the conventional bond market.
  - a. Savings shall be calculated after adjusting for (a) applicable fees, including takedown, remarketing fees, credit enhancement and legal fees, and (b) other options that may be available.
  - b. In order to properly determine expected savings when compared to the issuance of a traditional fixed rate bond (which normally contains par call dates), a fixed-payer interest rate swap should be priced with a matching early termination option. The swap need not be executed with such an early termination option, but the cost of the

option should be known in order to compare a fixed rate bond issue to variable rate debt matched with a swap (also referred to as “synthetic fixed rate debt”)

3. Manage exposure to changing market conditions in advance of anticipated bond issues (through the use of forward starting swaps).
4. To incur variable rate exposure within prudent guidelines (as determined by the Bond Bank’s Board of Directors), such as selling interest rate caps or entering into a swap in which the Bond Bank’s payment obligation is floating rate.
5. To achieve more flexibility in meeting overall financial objectives than can be achieved in conventional markets. An example may include selling a swaption to receive an up front payment.
6. Produce a specific benefit to the Bond Bank not otherwise available through traditional financing techniques.

### *Legality*

The Bond Bank must receive an opinion from a nationally recognized law firm that the agreement relating to the derivative is a legal, valid and binding obligation of the Bond Bank and entering into the transaction complies with applicable law. In addition, the Bond Bank must receive an opinion acceptable to the Bond Bank as to the counterparty from a counsel acceptable to the Bond Bank.

### *Prohibited Interest Rate Swap Features*

**The use of derivatives must be tied directly to Bond Bank debt instruments.**

The Bond Bank will not issue variable rate debt and/or enter into derivatives on debt that exceeds 20% of a Qualified Entity’s overall debt portfolio

The Bond Bank will not use interest rate swaps that: (i) are speculative – swaps must be used for one or more purposes noted above, (ii) lack adequate liquidity at the time of entry to terminate without incurring a significant bid/ask spread, (iii) provide insufficient price transparency to allow reasonable valuation, (iv) are used as investments.

As a result of executing any derivative transaction, the outstanding bond rating of the Bond Bank or Qualified Entity at the time of execution should not be impaired nor should the amount of credit enhancement capacity available to the Bond Bank be negatively affected.

## **IV. Methods of Soliciting and Procuring Derivatives**

In general, the Bond Bank should procure derivatives by competitive bidding. The Bond Bank shall determine which parties and the number of parties it will allow to participate in a competitive transaction. The Bond Bank may allow one or more bidders in addition to the winning bidder to participate in the transaction if the Bond Bank deems such participation to be in its best interests.

Notwithstanding the above, the Bond Bank may procure derivatives by negotiated methods in the following situations:

1. The Bond Bank may enter into a derivatives transaction on a negotiated basis if the Bond Bank makes a determination that due to the size or complexity of a particular derivative transaction, a negotiated transaction would result in the most favorable pricing. In this situation, the Bond Bank should attempt to price the derivative based upon an agreed-to methodology relying on available pricing screens to obtain inputs to a mathematical model. If appropriate, the Bond Bank should use a financial advisory firm to assist in the price negotiations.
2. The Bond Bank may enter into a derivatives transaction on a negotiated basis if it determines, in light of the facts and circumstances, that doing so will promote its interests by encouraging and rewarding innovation or the substantial commitment of time and resources by a counterparty.

Regardless of the method of procurement, the Bond Bank shall obtain an independent finding that the terms and conditions of any derivative entered into reflect a fair market value of such derivative as of the date of its execution.

## **V. Form and Content of Derivatives**

### **A. Interest Rate Swap Agreement**

Terms and conditions as set forth in the International Swap and Derivatives Association, Inc. "ISDA" Master Agreement shall be used as the basis for developing the swap documentation. The swap agreements shall include payment, term, security, collateral, default, remedy, termination, and other terms, conditions, provisions and safeguards as an Authorized Signatory deems necessary or desirable.

The Bond Bank and its Qualified Entities shall use law firms and financial advisory firm(s) with recognized experience in derivatives transactions to assist in preparation of necessary documents to enter into a derivative agreement. Suggested guidelines include, *but are not limited to*, the following:

- i. Downgrade provisions triggering termination shall in no event be worse than those affecting the counterparty.
- ii. Governing law for swaps will be Indiana.
- iii. The specified indebtedness related to credit events in any swap agreement should be narrowly defined and refer only to indebtedness of the Bond Bank and Qualified Entities that could have a materially adverse effect on its ability to perform its obligations under the swap. The definition of Debt should typically only include obligations within the same lien as the swap obligation.

iv. Preferred collateral thresholds stipulating when collateral will be required to be posted by the swap provider and by the Bond Bank as described in this Policy, as well as collateral requirements setting out the amount and types of collateral. Each will be established by an authorized signatory based on the respective credit ratings of the swap provider and the Bond Bank and respective credit support providers, if any. **Any derivative agreement that would require the posting of collateral by the Bond Bank must be approved by the Bond Bank's Board of Directors.**

v. Collateral should be held by an independent third party custodian.

vi. Eligible Collateral should generally be limited to:

- Cash,
- Direct obligations of the United States of America,
- Obligations for which the timely payment of the principal and interest on which are unconditionally guaranteed by the United States government,
- Notes, bonds, debentures, obligations or other evidence of indebtedness rated Aaa/AAA/AAA by Moody's, S&P and Fitch, respectively, which are issued by the United States Postal Service, the Federal National Mortgage Association (FNMA), the Federal Home Loan Mortgage Corporation (FHLMC), the Federal Farm Credit System, the Federal Home Loan Bank (FHLB), or any other United States government sponsored agency obligations rated Aaa/AAA/AAA which are non-callable. For the avoidance of doubt, mortgage pass-through securities, mortgage-backed securities pools (MBS), as well as collateralized mortgage obligations (CMO) and all mortgage derivative securities trusts are NOT eligible securities, and
- Certificates, notes, warrants, bonds, obligations, or other evidences of indebtedness of a State or a political subdivision thereof rated by S&P, Moody's and Fitch, if rated by Fitch, in one of its two highest rating categories

vii. Collateral Requirements

Terms imposing collateral requirements will be based on each party's credit ratings and their respective credit support providers, if any, and will require collateralization to secure any swap termination payment amount that exceeds the applicable collateral threshold. The minimum collateral requirements, including collateral thresholds, types of collateral and collateral valuation will be determined by an authorized signatory in consultation with this Policy and may require either the swap provider or the Bond Bank to post collateral. The specific list of permitted collateral is addressed in this Policy. Collateral shall be held by a third party custodian or as otherwise mutually agreed upon.

Collateral will be required to be posted in accordance with the collateral threshold table in the credit support annex when the potential termination payment owed by the party exceeds the applicable threshold. Threshold guidelines applicable to the swap provider for various ratings levels are identified in the table below. Specific thresholds for each

transaction shall be determined on a case-by-case basis. The Collateral Threshold Table for a swap provider should generally reflect the thresholds, categories and credit ratings levels shown below.

Collateral Threshold Table (for Swap Provider - guideline only)	
Credit Rating	Threshold
AAA	\$60 million
AA- to AA+	\$20 million
A to A+	\$5 million
Below A	None

The collateral thresholds applicable to the Bond Bank on a specific swap transaction shall be determined by an Authorized Signatory on a case-by-case basis and shall generally be no worse than the collateral threshold values provided for the swap provider on the same transaction.

The market values for the swap and the collateral shall be determined at least weekly.

viii. The Bond Bank shall have the right to terminate a swap agreement at “market,” at any time over the term of the agreement.

ix. Termination value should be set by a “Market Quotation” methodology, unless the Bond Bank deems an alternate methodology appropriate.

## B. Interest Rate Swap Counterparties

### 1. Credit Criteria

See section below titled “Credit Quality: Counterparty Standards”

### 2. Counterparty Termination Exposure

In order to diversify counterparty credit risk and limit credit exposure to any single counterparty, the Bond Bank will compute the “Maximum Net Termination Exposure” just prior to executing a swap.

“Maximum Net Termination Exposure” is the aggregate estimated termination value for all existing and projected swap transactions that would be paid by or received from a specific counterparty, parent or guarantor. For purposes of this calculation, the aggregate estimated termination value is equal to: (i) the estimated termination value based on all existing swaps at the time of evaluation of the proposed transaction, plus (ii) the estimated worst-case termination payment of the proposed transaction. The estimated worst-case termination payment shall be calculated assuming interest rates, as measured by the Bond Buyer US Weekly Yields 20 General Obligation Bond Index (available via ticker “BBWK20GO Index” on the Bloomberg Data Terminal, or from The Bond Buyer), increased or decreased by three standard deviations from the mean as measured over the preceding 10 years. For example,



on 8/6/09, using weekly data from the prior 10 year period, three standard deviations on the Bond Buyer 20 Index amounted to approximately 146 basis points.

The following chart provides the Maximum Net Termination Exposure to a swap counterparty based on the lowest credit rating assigned by any of the three nationally recognized rating agencies.

<b>Credit Rating Category</b>	<b>Maximum Collateralized Exposure</b>	<b>Maximum Uncollateralized Exposure</b>	<b>Maximum Total Termination Exposure</b>
AAA	Not applicable	\$80 million	\$80 million uncollateralized
AA	\$80 million	\$50 million	\$130 million
A	\$50 million	\$10 million	\$60 million
Below A	\$10 million	None	\$10 million

#### C. Term and Notional Amount

In connection with the issuance or carrying of bonds, the term of the swap agreement shall not extend beyond the final maturity date of the related bonds, but may be shorter than the final maturity date of the related bonds. The total “net notional amount” of all swaps related to a bond issue should not exceed the amount of outstanding bonds. For purposes of calculating the net notional amount, credit shall be given in situations where there are off-setting fixed rate and variable rate swaps and for basis swaps when the provider of the basis swap is also the provider for the related interest rate swap transaction.

#### D. Security and Source of Repayment

Generally, the same security and source of repayment (Trust Estate/Pledged Revenues) will secure the interest rate swaps as is used to secure the bonds that are hedged or carried by the swap, if any. The costs and benefits of subordinating the payments under the swap and/or termination payment shall be considered.

#### E. Cancellation Provisions

The benefit of incorporating the right to cancel the interest rate swap at no cost after a specified period of time, generally 5 to 10 years shall be evaluated. If the cancellation option is cost effective relative to the cost of obtaining a bond call option for a similar starting period, it will be purchased. A termination provision mitigates some risks of the swap, by allowing a no-cost termination anytime after the exercise date.

### VI. Aspects of Risk Exposure Associated with Such Contracts

Before entering into a derivative, the Bond Bank shall evaluate all the risks inherent in the transaction. These risks to be evaluated should include counterparty risk, termination risk, rollover risk, basis risk, tax risk, market access risk, remarketing risk, credit risk and liquidity risk.

The Bond Bank shall endeavor to diversify its exposure to counterparties. To that end, before entering into a transaction, it should determine its exposure to the relevant counterparty or counterparties and determine how the proposed transaction would affect the exposure.

Type of Risk	Description	Evaluation Method
Basis Risk	The mismatch between floating rate interest <u>paid on the bonds</u> and the interest amounts <u>received from the floating leg of the swap</u> , which is normally based off of an index (i.e., LIBOR or SIFMA)	Review the current and historical differences between the swap variable rates and the bond variable rates to determine if there continues to be a high degree of correlation. Also assess the factors that could affect the correlation of the rates in the future.
Tax Risk	The risk created by potential tax events that could affect the relationship of the swap index with the interest rate on the variable rate bonds.	Review tax events in the proposed swap agreements and evaluate the impact of potential changes in tax law and the relationship of the swap index with the interest rates on the variable rate bonds.
Counterparty Risk	The failure of the counterparty to make contractually required payments, or otherwise comply with the terms of the swap agreement.	Monitor counterparty credit ratings each quarter, limit exposure levels to specific counterparties, establish collateralization thresholds and demand collateral in accordance with the terms of the Credit Support Annex when thresholds are exceeded.
Termination Risk	The risk that there will be a mandatory termination of the swap. A termination will almost always result in the Bond Bank either owing or being due a termination payment (funding for an early termination payment may be problematic).	Compute termination exposure for all existing and proposed swaps at market value and also under an expected worst case scenario. Periodically update a contingency plan for swap terminations, specifying how to fund or finance a termination payment and/or replace the hedge.
Rollover Risk	The mismatch of the maturity of the swap and the maturity of the underlying bonds.	Determine the capacity to issue variable rate bonds that may be outstanding after the maturity of the swap.
Liquidity Risk	The risk that liquidity (i.e., a Standby Bond Purchase Agreement or direct pay Letter of Credit) is unavailable when needed for future renewals or that the price for the liquidity is unattractive at that time.	<b>Only 20% of debt for each revenue source may be issued in variable rate form.</b> Also, use a bond structure that does not require liquidity support, otherwise evaluate the expected availability of liquidity support for hedged (swapped) and unhedged variable rate debt.

Market Access Risk	The risk that the Bond Bank will not be able to enter credit markets or that credit will become more costly. For example, to complete a derivative's objective, a new money issuance or a refunding may be planned in the future. If at that time the Bond Bank is unable to enter credit markets, expected cost savings may not be realized while the Bond Bank will continue to be subject to its obligations required by the derivative contract	Limit the use of forward-starting derivatives that require the issuance of new or refunding bonds in order to complete the derivative's objective.
Remarketing Risk	The risk that the remarketing agent will be unable to remarket VRDNs	Obtain liquidity support in the form of a letter of credit or standby bond purchase agreement.
Credit Risk	The occurrence of an event modifying the credit quality or credit rating of the swap provider or its credit support provider.	Monitor the ratings of swap providers, insurers, guarantors, and any other credit support providers.

### **Contingency Plan for Mandatory Termination**

Termination exposure of each swap and for the total swap termination payment exposure shall be calculated at least annually and a contingency plan prepared to either replace the swaps or fund the termination payments, if any, in the event one or more outstanding swaps are terminated. The Bond Bank shall additionally assess its ability to obtain replacement swaps and identify revenue sources to fund potential termination payments.

## **VII. Credit Quality: Counterparty Standards**

Derivative products create for the Bond Bank a continuing exposure to the creditworthiness of financial institutions that serve as the Bond Bank's counterparties on derivative transactions. To protect its interests in the event of a credit problem, the Bond Bank will take a three-tiered approach:

- 1) Use of highly rated and experienced counterparties: Standards of creditworthiness, as measured by the credit ratings, will determine eligible counterparties. Any derivative transaction entered shall be with a Swap Provider whose long term debt obligations are:
  - a) rated at least "A1" in the case of Moody's Investors Service, or
  - b) rated at least "A+", in the case of Standard & Poor's Corporation, or
  - c) the equivalent thereto in the case of any other rating agency and sufficient to maintain any existing rating of the Bond Bank's long term debt, and/or
  - d) secured by a collateral pledge of Eligible Collateral (as defined in this Policy) to obtain the ratings and effect as described above, according to guidelines posted by Standard & Poor's Corporation

- 2) Collateralization on downgrade: If a counterparty's credit rating is downgraded below "A3" by Moody's; below "A-" by Standard & Poor's Corporation, or below the equivalent in the case of any other rating agency who rates the counterparty, the Bond Bank will require that its exposure to the counterparty be collateralized as per an ISDA Credit Support Annex ("CSA").
- 3) Termination: If a counterparty's credit rating is downgraded below investment grade (below "Baa3", "BBB-" or the equivalent for another rating agency which maintains ratings on the swap counterparty) the Bond Bank may exercise a right to terminate the transaction prior to its scheduled termination date. The Bond Bank will seek to require that terminations triggered by a counterparty credit downgrade will allow the Bond Bank to go back to market to replace the downgraded party with another suitable counterparty at no out-of-pocket cost to the Bond Bank.

## **VIII. Long-Term Implications**

In evaluating a particular transaction involving the use of derivatives, the Bond Bank shall review long-term implications associated with entering into derivatives, including costs of borrowing, historical interest rate trends, variable rate capacity, credit enhancement capacity, opportunities to refund related debt obligations and other similar considerations.

## **IX. Methods to be Used to Reflect Such Contracts in the Bond Bank's Financial Statements**

The Bond Bank shall reflect the use of derivatives on its financial statements in accordance with generally accepted accounting principles.

## **X. Monitoring and Reporting**

The Bond Bank shall issue a report to the Bond Bank Board of Directors on an annual basis and as requested by the Bond Bank Board of Directors on the following items:

1. A summary of key terms of the agreements, including notional amounts, interest rates, maturity and method of procurement.
2. The full name, description and credit ratings of each swap counterparty or their applicable guarantor.
3. The mark-to-market value of each agreement, as well as the aggregate mark-to-market value for each counterparty
4. The swap amounts that were paid and received, as well as the payments on the corresponding bond issue. The Bond Bank shall internally monitor all swap receipts and related bond interest payments on a monthly basis, and issue an annual report to the Bond Bank Board of Directors for their review
5. Discussion of other risks associated with each transaction.

This Policy is reviewed and updated annually, and presented to the Bond Bank's Board for its approval. The Executive Director and Deputy Executive Director are the designated administrators of the Policy. The Executive Director has the day-to-day responsibility and authority for structuring, implementing, and managing interest rate swaps. The Bond Bank may enter into interest rate swaps with only qualified swap counterparties (see above). The Executive Director and Deputy Executive Director have the authority to select the counterparties, in accordance with the criteria established in the Policy.

## **XI. Glossary of Terms**

**BASIS RISK** – Basis risk refers to a mismatch between the interest rate received from a swap agreement (normally based on either the SIFMA or LIBOR index) and the interest actually owed on an issuer's bonds. The risk, for example, in a floating to fixed rate swap is that the variable rate interest payments will be less than the variable interest payments actually owed on the hedged bonds.

**BASIS SWAP** – Floating-to-floating interest rate swaps which are used to manage basis or tax risk and change the basis upon which variable cash flows are determined. For example, an issuer may have originally entered into a pay fixed / receive 67% of LIBOR swap, but now would prefer to receive swap payments based on the SIFMA Index after the swap was originated. The issuer can change the payment basis by entering into a new pay 67% of LIBOR / receive SIFMA basis swap to accomplish this objective.

**CAP** – is a derivative in which the buyer receives payments at the end of each period in which a specified interest rate exceeds the agreed strike price. An example of a cap would be an agreement to receive a payment for each month the LIBOR rate exceeds 2.5%

**CSA** – is an acronym for Credit Support Annex, which is a legal document that regulates credit support (collateral) for derivative transactions. It is one of the four parts that make up an ISDA contract but is not mandatory. It is possible to have an ISDA agreement without a CSA but normally not a CSA without an ISDA. A CSA defines the terms or rules under which collateral is posted or transferred between swap counterparties to mitigate counterparty credit risk.

**COLLAR** – is a derivative in which the buyer purchases a cap and sells a floor. An interest rate collar can be an effective way of hedging interest rate risk associated with holding bonds. Since a bond's price falls when interest rates go up, the interest rate cap can guarantee a maximum decline in the bond's value. While selling an interest rate floor does limit the potential appreciation of a bond given a decrease in rates, it provides upfront cash to help pay for the cost of the ceiling. For example, an investor enters a collar by purchasing a ceiling with a rate of 10% and sells a floor at 8%. Whenever the interest rate is above 10%, the investor will receive a payment, but if the interest rate drops to 7%, which is under the floor, the investor must now make a payment to the party that bought the floor.

**DERIVATIVE** – is a financial instrument that is derived from some other asset, index, event, value or condition (known as the underlying). Rather than trade or exchange the underlying itself, derivative traders enter into an agreement to exchange cash or assets over time based on the underlying. Common forms of derivatives that may be used by the Bond Bank and its Qualified Entities include swaps, caps, floors, collars, swaptions, and basis swaps.

**FLOOR** – is a derivative in which the buyer receives payments at the end of each period in which a specified interest rate is beneath the agreed strike price. An example of a floor would be an agreement to receive a payment for each month the LIBOR rate is less than 0.5%.

**ISDA** – is an acronym for the International Swaps and Derivatives Association, which is a trade organization of participants in the market for over-the-counter derivatives. It is headquartered in New York, and has created a standardized contract (the *ISDA Master Agreement*) to enter into derivatives transactions. The ISDA Master Agreement is a pre-printed form which will not be amended itself (save for writing in the names of the parties on the front and signature pages). However, it also has a manually produced *Schedule* in which the parties are required to select certain options and may modify sections of the Master Agreement if desired. The Master Agreement would be modified to the extent the modification is mentioned in the Schedule. ISDA also produces a credit support annex (*CSA*) which further permits parties to an ISDA Master Agreement to mitigate their credit risk by defining the terms or rules under which collateral is posted or transferred between swap counterparties to mitigate counterparty credit risk.

**LIBOR** -- The London Interbank Offered Rate is a daily reference rate based on the interest rates for various maturities out to 12-months at which banks borrow unsecured funds from other banks in the London wholesale money market (or interbank market). LIBOR rates are officially calculated by Thomson Reuters and published by the British Bankers' Association (BBA) after 11:00 am. Interest rate swaps based on short LIBOR rates currently trade on the interbank market for maturities up to 50 years. For example, a "five year LIBOR" rate refers to the 5 year swap rate versus 3 or 6 month LIBOR. Data sources such as Bloomberg provide a composite view of interbank trading information gathered from multiple, active market makers in the interest rate swap market to produce their LIBOR (swap) yield curve.

**MARK-TO-MARKET (MTM)** – is the value of the derivative at its current fair market price. This is sometimes referred to as the Net Present Value or simply Present Value of a derivative position. For a swap, the market practice is to provide a mark-to-market valuation using a mid-market valuation, which means the midpoint between the *bid* and *ask* prices for a swap. A swap's termination value is normally several basis points away from (more expensive than) mid-market value, to account for various dealer hedging costs and profit margin when exiting a derivative agreement prior to the scheduled maturity of the transaction.

**MARKET QUOTATION** – means an amount determined on the basis of quotations from Reference Market-makers (four leading dealers in the relevant market selected by the party determining a Market Quotation in good faith). Each quotation will be for an amount, if any, that would be paid to such party or by such party in consideration of an agreement between such party and the quoting Reference Market-maker to enter into a transaction (the "Replacement Transaction") that would have the effect of preserving for such party the economic equivalent of any payment or delivery by the parties. If more than three quotations are provided, the Market Quotation will be the arithmetic mean of the quotations, without regard to the quotations having the highest and lowest values. If exactly three such quotations are provided, the Market Quotation will be the quotation remaining after disregarding the highest and lowest quotations. For this purpose, if more than one quotation has the same highest value or lowest value, then one of such quotations shall be disregarded. If fewer than three quotations are provided, it will be deemed that the Market Quotation in respect of such Terminated Transaction or group of Terminated Transactions cannot be determined.

**NOTIONAL AMOUNT** – is the principal amount in a swap transaction; analogous to par amount for a bond issue. Used to determine interest payment calculations; however, notional amounts in a swap transaction are not actually exchanged.

**SIFMA Index** – The SIFMA Municipal Swap Index is a 7-day high-grade market index comprised of tax-exempt VRDOs. Formerly The Bond Market Association/PSA Municipal Swap Index produced by Municipal Market Data (MMD), now produced by the Securities Industry and Financial Markets Association. The Index was created in response to industry participants' demand for a short-term index which accurately reflected activity in the VRDO market. The Index serves as a benchmark floating rate in the swap transaction. The Index is calculated on a weekly basis, and released to subscribers on Thursday. The Index is comprised of actual issues from the most comprehensive source of data on VRDOs available.

**SWAP** – is a derivative in which two counterparties agree to exchange one stream of interest payments for another stream of interest payments. These streams are called the *legs* of the swap. The interest payments are calculated over a notional principal amount, which is usually not exchanged between counterparties. In municipal finance typically a municipal entity pays a fixed interest rate and receives a floating interest rate which is based on a tax-exempt index (“SIFMA Index”) or a percentage of a taxable index (“LIBOR”), to hedge the floating rate payments made on a floating rate bond issue.

**SWAPTION** – is an option on a swap. The owner of a swaption (“long position”) pays an upfront premium to have the right, but not the obligation, to enter into a swap on or before a specified future date. The seller of this swaption (“short position”) receives the upfront premium from the buyer, but can be forced into a swap at a future point in time at the option of the owner.

**VRDN** – is an acronym for Variable Rate Demand Notes. A Variable Rate Demand Note is a long-term taxable or tax-exempt bond that bears a floating interest rate and that provides investors the option to tender or put securities at par on seven days notice—or in some cases within a day's notice. The bonds tendered are then resold by the remarketing agent in the secondary market to other investors. VRDNs can be converted to a long-term fixed-rate security upon appropriate notice by the issuer. The interest rate resets daily or weekly, depending upon the security. The reset rate is determined by a Remarketing Agent based on supply and demand. VRDNs normally require a liquidity facility in the form of a “letter of credit” or “standby bond purchase agreement” from a bank to purchase bonds from investors that cannot be remarketed successfully.